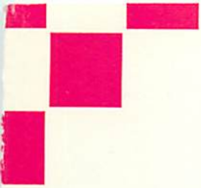
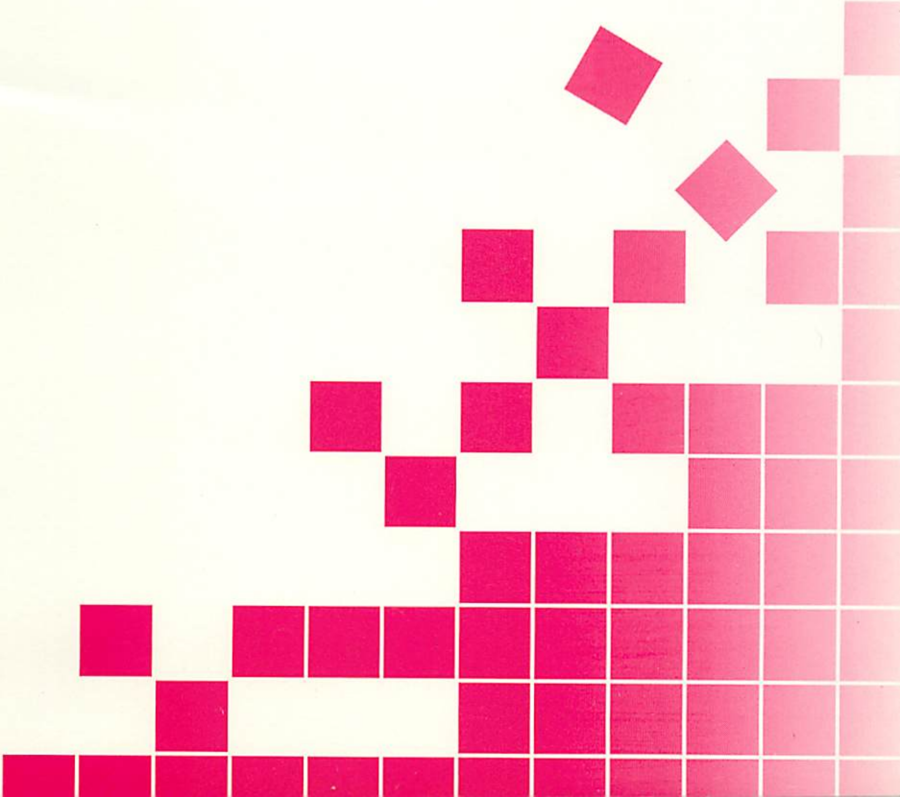


CIRRUS 5428

USER'S MANUAL



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Utility software

Several utility programs are supplied with you CIRRUS LOGIC VGA. The following section describes these utilities and how to use them. CLMODE is a program supplied with your CIRRUS LOGIC VGA to configure it's various options. SetRES lets the user change the operating resolution and the number of colors from within Windows. The Display Power Manager for Windows 3.x provides a mechanism to control the amount of power used by a computer's monitor.

CLMODE

The CLMODE utility allows the user to configure the panel options, define the type of monitor attached, and set the video modes supported by the CIRRUS LOGIC VGA.
At the DOS prompt type: `CLMODE[Enter]`
The main popup window consists of a number of buttons. Each button represents a different option or menu. The underlined letter of a button name specifies the hot key combination for that item. For example, press the `[Alt]` and the underlined letter keys simultaneously or just the underlined letter key to select an option. Note that to use a mouse, a mouse driver should be installed prior to running the CLMODE utility in order to use the mouse pointer for button selection.
Choosing the attached monitor and type

0 VGA
1 8514
2 Super VGA
3 Extended Super VGA
4 Multifrequency
5 Extended Multifrequency
6 Super Multifrequency
7 Extended Super Multifrequency

SETRES

The SetRES utility runs under Windows 3.x and allows the user to change the screen resolution, number of available colors, and to select either large or normal size fonts and system resources. This application assumes that the Windows drivers have been correctly installed and configured using Windows Setup.

Installation

Start Windows.
In the Program Manager, choose File Run. Specify the diskette drive where the Windows Drivers and Utilities Diskette is inserted, and run the install program. For instance if the floppy is in drive A:, type `A:\INSTALL[Enter]`
When prompted, specify the Windows directory.
Install and configure the actual Windows driver following the instructions in the Windows 3.x section of this manual.
SetRES may now be run by selecting the SetRES icon. The first time that you run SetRES, the settings for the current driver won't be correct, but go ahead and set them once, and they will be correct from then on.

Power management screen saver

The Display Power Manager for Windows 3.x provides a mechanism to control the amount of power used by a computer's monitor. It provides a total of 5 levels of power savings.

The first level is a conventional screen saver that turns the screen black and bounces a logo around. The black screen provides substantial power savings and the animation lets you know that the computer is still active.

The other four levels of power savings are...

Reduced on mode - Reduced on mode is an optional power saving state that allows the computer to use some power savings while still fully operational. Currently this is limited to some portable computers that can lower the power usage on their LCD displays. This causes some degradation of display quality.

Stand by mode - Stand by mode is an optional power saving state that gives minimal power savings, but provides the fastest recovery time. It is enabled by blanking the screen and lowering the horizontal rate to less than 10 Hz with less than a 25% duty cycle. There is no change to vertical timing.

Suspend mode - Suspend mode is a mandatory state in which substantial power savings are achieved by the display. The trade off is that recovery times are longer than from stand by mode. It is enabled by blanking the screen and lowering the vertical rate to less than 10 Hz with less than a 25% duty cycle. There is no change to horizontal timing.

Off mode - Off mode provides the highest level of power savings and the longest recovery times. With this mode the display is actually turned off so that recovery times are equivalent to switching the monitor on. It is enabled by blanking the screen and lowering both the horizontal and vertical rates to less than 10 Hz with less than a 25% duty cycle.

They match the power saving modes defined by the VESA VBE/PM (see below) standard. As you move down from one mode to the next, the amount of power being saved is greater, but so is the amount of time that it takes for a monitor to recover and be ready to display data.

The screen saver will cycle through all of the selected power saving modes one after another until the maximum selected power saving mode has been reached. The number of minutes that is specified for each level is the number of minutes after the previous mode has been enabled. It is not the total time before entering that mode.

Please refer to your Windows Users Guide for information on how to install screen savers in Windows.

PM.EXE

BIOS versions prior to v1.40 do not include the function calls required to fully support the Display Power Management screen saver. To use these BIOSs with power management software requires that PM.EXE be excuted before starting Windows 3.x. To run PM.EXE type

C:\WINDOWS\PM[Enter]

Where `C:\WINDOWS` is the directory where Windows 3.1 is installed on your computer. For convenience, PM.EXE MAY BE PUT INTO YOUR AUTOEXEC.BAT FILE.

Microsoft Windows 3.x

If you haven't already installed the SetRES utility program, these instructions will install a single driver for a single resolution. If you want to be able to easily switch between different resolutions, you should install SetRES before this procedure.

To install the Windows 3.x drivers from the DOS prompt, proceed as follows:

Insure that Windows 3.x is already installed on your computer.

From your Windows directory, at the DOS prompt, type `SETUP[Enter]` to run the Windows SETUP.EXE program. Follow the instructions on the screen. When you come to the screen which lists the hardware and software components such as display adapter (e.g. VGA, CGA, etc.), keyboard type, mouse type, etc., go to the **Display selection by using cursor keys to move the highlighted bar and press** `[Enter]`.

From the next menu listing of display options, scroll to the bottom of the list, and highlight the following text:

Other (Requires disk provided by a hardware manufacturer)

Press `[Enter], and when prompted, insert the Windows Display Driver diskette into drive A:\ or B:\ and type A:\or B:\[Enter].`

You will see the list of drivers and their associated resolutions, such as:

GD 54XX V1.4, 1280X1024X16
GD 54XX V1.4, 1024X768X16
GD 54XX V1.4, 640X480X16
GD 54XX V1.4, 640X480X256
GD 54XX V1.4, 640X480X64K
GD 54XX V1.4, 800X600X16
GD 54XX V1.4, 800X600X256

Highlight the desired choice by moving the cursor to the correct display driver, and then press `[Enter]`.

If you are using the Japanese Windows driver disk, please reference the system directory. For example, type the following: `A:\SYSTEM [Enter]`

Continue with the remainder of the setup procedure.

To install the Windows 3.x drivers from within Windows, proceed as follows:

Insure that Windows 3.x is already installed on your computer and start Windows.

From the Main window of the Program Manager run the Windows 3.x Setup program.

Select Change Systems Settings... from the Options menu of Setup.

Display: line. Scroll to the end of the list of available display drivers and select Other display (Requires disk from OEM)....

Insert the Windows display driver diskette into drive A: and type `A:\[Enter]` as the pathname, then click on **OK.**

You will see the list of available drivers and their associated resolutions, such as:

GD 54XX V1.4, 1280X1024X16
GD 54XX V1.4, 1024X768X16
GD 54XX V1.4, 640X480X16
GD 54XX V1.4, 640X480X256
GD 54XX V1.4, 640X480X64K
GD 54XX V1.4, 800X600X16
GD 54XX V1.4, 800X600X256

Highlight by moving the cursor to the desired display driver, and then click on **OK.**

If you are using the Japanese Windows driver disk, please reference the system directory. For

example, type the following: `A:\SYSTEM [Enter]`
Continue with the remainder of the setup procedure. The changes will not take effect until Windows is restarted.

For Japanese Windows drivers:
When changing color, resolution, or font size from Windows setup, you must type in the path after you have selected a particular driver option. For example: type `A:\SYSTEM` (the CIRRUS LOGIC Japanese driver disk has to be in drive A:, and this is the first time you install this option).
or
Type `C:\WINDOWS\SYSTEM` (this display option has been installed previously and you want to use it now).

Installing Windows NT display drivers:

1. Start Windows NT.
2. From the **MAIN window of the Program Manager run the Windows NT Setup program.**
3. Select **Change Systems Settings from the Options menu of Setup.**
4. Click on the down arrow at the right side of the DISPLAY: line. Scroll to the end of the list of available display drivers and select **OTHER display (requires disk from hardware manufacturer).**
5. Insert the Windows NT display driver diskette into drive A: and type `A:\[Enter]` as the pathname, then click on **OK.**
6. You will see the list of available drivers, their associated resolution and monitor refresh rates, such as:
   GD54XX v1.0 640x480, 16 colors 60Hz/72Hz
   GD54XX v1.0 640x480, 256 colors 60Hz/72Hz
   GD54XX v1.0 800x600, 16 colors 56Hz/60Hz/72Hz
   GD54XX v1.0 800x600, 256 colors 56Hz/60Hz/72Hz
   GD54XX v1.0 1024x768, 16 colors 60Hz/70Hz/72Hz
   GD54XX v1.0 1024x768, 16 colors interlaced
   GD54XX v1.0 1024x768, 256 colors 60Hz/70Hz/72Hz
   GD54XX v1.0 1280x1024, 16 colors Interlaced
7. Highlight by moving the cursor to the desired display driver, click on **OK, and then click on Close.**
8. Continue with the remainder of the setup procedure. The changes will not take effect until the computer is restarted.
9. After you have installed the Windows NT driver, to select another display resolution, follow steps 2 and 3 above, then click on the down arrow on the right side of the DISPLAY: line to select the desired resolution from the list of available display drivers.

These Windows NT drivers for the GD54XX only support systems or video adapters with 1MB of DRAM or more.

Autodesk - ADI 4.2

The ADI 4.2 driver provided with your CIRRUS LOGIC VGA is the TurboDLD*Classic display list driver from Panacea. It has only two purposes:*
To speed up AutoCAD REDRAWs, PANs, and ZOOMs

Installation
Insert the CIRRUS LOGIC drivers diskette into Drive A: (or B:). Run the CIRRUS LOGIC installation program (INSTALL.EXE), and choose the option for the Autodesk/AutoCAD drivers and specify the drive and directory where you want them copied to (such as C:\ACAD\DRV).
Since the start-up is a little bit different for AutoCAD Release 12 than it is for older versions, please follow the instructions for the version of AutoCAD you will be using TurboDLD*Classic with.*

To configure AutoCAD 12

Begin AutoCAD with the reconfigure switch by typing
ACAD -R[Enter]
Choose option 3, **Configure Video Display from the AutoCAD configuration menu.**
Type Y at the Do you want to select... message to display the available video options for AutoCAD.
TurboDLD Classic by Panacea Inc. from the list of display options.
If you chose to install TurboDLD*Classic into a sub-directory other than ACAD\DRV, be sure to modify the ACADDRV environment variable to include that sub-directory. Otherwise, the TurboDLDClassic selection will not appear in the list of available drivers.*

To configure AutoCAD 11/386

Run the FASTACAD.BAT that was copied to the TurboDLD*Classic sub-directory by typing:*
C:\TURBODLD\FASTACAD[Enter]
The above example shows that TurboDLD*Classic was installed on drive C: in the TURBODLD sub-directory.*
Start AutoCAD and reconfigure it to use TurboDLD*Classic by selecting option 5,* **Configure AutoCAD from the AutoCAD main menu. From the next menu, select option 3, Configure Video Display. Choose Item 1, P386 ADI 4.0/4.1 (R11) as your display device. (For more information, see your AutoCAD 'Installation and Performance Guide.')**

AutoCAD Release 12

If you need to make changes to your Release 12 TurboDLD*Classic configuration, type* `CONFIG[Enter] at the AutoCAD command prompt or use ACAD -R[Enter]` when starting the program. Select option 3, **Configure Video Display. Answer** `No[Enter]` **to the Select a new videodriver ... prompt to start the TurboDLD***Classic configuration program. Make the desired changes to the driver and then* **Save and Exit to continue to the AutoCAD drawing editor.**

AutoCAD Release 11

To change a Release 11 configuration, select option 5, **Configure AutoCAD from the AutoCAD main menu, and then from the configuration menu, select option 3,** Configure Video Display. Answer no to the Select a new video driver ... prompt to start the TurboDLD*Classic configuration program. Change the desired driver options. Save and Exit to* *return to the AutoCAD configuration menu. Open or begin a new drawing.*

To completely reconfigure TurboDLD*Classic using Panacea's defaults, delete DLDSETUP.DAT from either the \ACAD\DRV sub-directory (R12) or the TURBODLD sub-directory (R11) and then follow the Driver Configuration instructions earlier in this chapter.*

Configuring an AutoCAD 11 environment

During the TurboDLD*Classic installation process, a FASTACAD.BAT file is created and placed into the TURBODLD sub-directory. FASTACAD.BAT contains four lines that set four separate environment variables: DLDCFG - used by TurboDLDClassic to find all of its configuration files; and DSPADI, RCPADI, RDPADI - used by AutoCAD, 3D Studio and AutoShade 2 w/RenderMan, respectively, to find the driver file. FASTACAD.BAT must be run prior to starting AutoCAD R11 and only needs to be run once per system boot. For automatic loading of the environment variables, FASTACAD.BAT may be added to the AUTOEXEC.BAT file or an AutoCAD start-up batch file.*

To add FASTACAD.BAT to your AUTOEXEC.BAT file, insert the line

```
CALL D:\TURBODLD\FASTACAD
```

anywhere in the file. The above example assumes that FASTACAD.BAT resides in a sub-directory on drive D: called \TURBODLD.

If you don't wish to put FASTACAD in your AUTOEXEC.BAT file, you may put it in a batch file which also starts AutoCAD, or simply remember to run the file before starting AutoCAD.

If you get the message **Out of Environment Space when you run FASTACAD.BAT, you will need to enlarge your system's environment. This is accomplished by adding the following line,**

```
SHELL=C:\COMMAND.COM /P /E:768
```

to your CONFIG.SYS file. The **/E:768 specifies an environment size of 768 bytes. Change this number as appropriate. You will need to reboot after modifying your CONFIG.SYS file, in order for the changes to take effect.**

Configuring AutoShade, 3D Studio and AVE Render

AutoShade

To configure AutoShade v2.0 to use TurboDLD*Classic, first run the FASTACAD.BAT file from your TurboDLDClassic sub-directory to set the AutoShade environment variables. Next, start AutoShade with* `SHADE /R[Enter]`, which will allow you to reconfigure AutoShade. For the display device, select **P386 Autodesk Device Interface display driver, and for the rendering display select the P386 Autodesk Device Interface rendering driver. If you are running the display and rendering screen on the same monitor (i.e. single monitor), make sure to tell AutoShade this. A single monitor approach will require a redraw of the display screen after a rendering screen.**

Next, follow the same installation steps that were used to select the graphics board and display and rendering resolutions for AutoCAD.

3D Studio release 1.X & 2.X & 3.X

Configuring 3D Studio requires three steps. First, you need to set the environment variables for 3D Studio by running the PANA3DS.BAT file that was copied into your TurboDLD*Classic sub-directory. Next, edit the 3DS.SET file, located in your 3DS directory. The following three lines may be changed to use the RCPADI rendering driver. Locate the lines that begin with*

RENDER-DISPLAY
MAIN-DISPLAY
MATERIAL-DISPLAY
and change them to read
RENDER-DISPLAY=RCPADI
MAIN-DISPLAY=RCPADI
MATERIAL-DISPLAY=RCPADI

Make sure to remove the ';' or any spaces that may be present at the beginning of the line.

It is only necessary for the **RENDER-DISPLAY line to be set to RCPADI in order to render at high resolution. If you do not need a high resolution main display screen or if you will not be using the materials editor, you may keep MAIN-DISPLAY and MATERIAL-DISPLAY set to their defaults.**

For 3D Studio 1.x, there is no **RENDER-DISPLAY line. The corresponding line is DEFAULT-DISPLAY and should be changed to read**
DEFAULT-DISPLAY="RCPADI"

The quotes around RCPADI must be used for this version of 3D Studio.

The **MATERIAL-DISPLAY should only be configured for RCPADI when BOTH the Display AND Rendering Resolutions of TurboDLD***Classic are configured for 256 color resolutions. An unpredictable Materials Editor screen will appear if anything other than 256 colors is selected. If you are unsure about the function of the Materials Editor screen, use the Materials Editor as VGA, you should not have any problems at all. Please note too, that the use of the Materials Editor will not give you any more colors to choose from.*

Save the above changes and start 3D Studio to begin the last part of the configuration procedure.

From your 3D Studio directory, delete the file 3DADI.CFG by typing
DEL 3DADI.CFG[Enter]

This will cause 3D Studio to start in its reconfiguration mode. Start 3D Studio by typing `3DS[Enter]`.

During the 3D Studio reconfiguration start-up, you are prompted with a series of questions. After the first 3D Studio question appears and is answered, the TurboDLD*Classic configuration program will appear. Select a graphics board and display and rendering resolutions as you would for AutoCAD use.*

Because RCPADI device drivers, by definition, are combined display and rendering devices, during 3D Studio reconfiguration, you will be brought to the TurboDLD*Classic configuration menu more than one time, once each for Display and Rendering. It is not necessary to select display and/or rendering resolutions a second time. Simply press the* `[Enter]` key to remove the help screen and then highlight **Save and Exit to continue to the next question. Also if FASTACAD.BAT is used instead of PANA3DS.BAT to define the AutoCAD operating environment, the TurboDLD***Classic configuration menu will also appear for RDPADI and DSPADI devices if they are present.*

3D Studio v3.X

Panacea's TurboDLD*Classic drivers will run with 3D Studio release 3.X. Please use 3D Studio's default RCPADI VIBRANT GRAPHIC DRIVER CONFIGURATION. Follow the Vibrant Graphics Configuration Program Setup Procedures that are found in your 3D Studio 3.X Installation Manual for ADI 4.2 Drivers.*

From your Turbodld Subdirectory run PANA3DS.BAT to set the 3D Studio environment settings.

Run 3DS VIBCFG.

During Configuration for Vibrant Graphics there will be four categories, Main-Display, Materials-Display, Render-Display, and Flic Playing. For these four categories set RCPADI. When Vibrant Graphic settings are complete click **OK to exit and save settings. The Setup for Turbodld Classic Drivers will then commence. Follow the menus to Setup Display and Rendering Screen. Save and Exit to 3D Studio.**

Please note that the out of the box CIRRUS LOGIC drivers that are supported in 3D Studio release 3.X are supplied and maintained by Autodesk.

TurboDLD*Classic only provides still rendering support for 3D Studio. TurboDLDClassic will not play back rendered .FLI or .FLC files. This is a limitation of 3D Studio.The Mapping Icon colors, which are usually yellow and green, will appear as black when using any external ADI driver. Also, 3D Studio has problems with large fonts. It is recommended that you use the default font settings.*

GEM/3

Installing GEM/3 display drivers

To install the GEM drivers the first step is to build a GEM driver pak.

In the following three steps, you create a disk known as the GEM DRIVER PAK. Using the standard DOS FORMAT utility, format a blank diskette by inserting it in drive A: and typing the following:

```
FORMAT A: /V [Enter]
```

The DOS format utility will then prompt for the volume label by displaying:

Volume Label? (11 characters max) **Press Enter for none.**

At this prompt, type the following volume-label name in upper case:

```
GEM DRIVRPK [Enter]
```

Using the DOS COPY utility, copy the following files from the GEM/3 system master diskette (comes with GEM/3) to the newly formatted GEM DRIVRPK diskette. Type the following sample commands assuming that the GEM/3 system master diskette is in drive A: and the GEM DRIVRPK diskette is in drive B:

```
COPY A:GEMVDI.EXE B: [Enter]
COPY A:MDGEM?.SYS B: [Enter]
```

Insert the CIRRUS LOGIC drivers diskette into Drive A:. Run the CIRRUS LOGIC installation program (INSTALL.EXE), and choose the option for the GEM/3 drivers and specify the drive and directory where you want them copied to (such as B:\). GEM/3 requires that the drivers be installed from the root directory of a floppy disk in drive A:. Be sure to install the drivers to the root of drive A: or drive B: and then place the diskette in drive A: before proceeding.

Install GEM/3 (following the instructions provided in the product's manual), selecting the standard IBM VGA Color (IBM PS/2) driver.

After successfully completing installation, insert the GEM/3 System Master Disk in drive A:. Move to drive A: by typing `A: [Enter]`. Please note that you must install from the A: drive. Then type GEMSETUP`[Enter]`.

Follow the GEM/3 installation instructions up to the CHANGE EXISTING CONFIGURATION stage. When prompted for a screen driver choice, highlight:

OTHER (DRIVER PACK)

When prompted to insert a screen driver into drive A:, insert the newly created GEM DRIVRPK diskette. Select one of the following:

CIRRUS LOGIC VGA 16 Color 800x600
CIRRUS LOGIC VGA 16 Color 1024x768

Continue with the remainder of the installation.

Lotus 123 v2.x, Symphony, and Report Writer

To install a Lotus display driver, proceed as follows:

Run the CIRRUS LOGIC installation program (INSTALL.EXE), and choose the option for the Lotus 123 and Symphony drivers and specify the drive and directory where you want them copied to (such as C:\LOTUS).

From within the Lotus sub-directory type:

INSTALL [Enter]

From the next menu, select Advanced Options for Lotus 123 v2.2 or **Change Selected Equipment for Lotus 123 v2.3.**

For v2.2, select **Add New Drivers to Library and go to step 3. For v2.3, select Modify Current Driver Set and go to step 6.**

From the next menu, select **Modify Current Driver Set.**

From the next menu, select one of the display and resolution configurations.

From the next menu, select **Return To Menu.**

From the next menu, select **Save Changes.**

Enter the name you have selected for the driver set. We recommend that the driver set name reflect or include the driver's resolution (e.g. 132x43) NOTE: The default driver set name assigned by the program is 123.SET.

You may create multiple driver sets with different display resolutions. To run Lotus 1-2-3 or Symphony with a specific driver set, type:

123 SETNAME [Enter] or

SYMPHONY SETNAME [Enter]

where SETNAME is the name of the desired driver set.

Lotus 123 v3.X

To install a Lotus 3.0 or 3.1 display driver, proceed as follows:

It is assumed that Lotus 1-2-3 v3.0 or 3.1 is already installed on your hard disk, using the standard Lotus installation utility. To install this driver, make the directory containing 1-2-3 v3.0 the current directory. For example, if 1-2-3 is in the directory named 123R3, then type the following command:

CD \123R3[Enter]

One of the files used in the driver installation is named INSTALL.DDF. This is a text file used by the 1-2-3 installation utility, containing information on each of the drivers and modes of operation. If you have been using a driver supplied with another graphics adapter, you may want to make a backup copy of the INSTALL.DDF file currently in your 1-2-3 directory.

COPY INSTALL.DDF INSTALL.BAK [Enter]

Run the CIRRUS LOGIC installation program (INSTALL.EXE), and choose the option for the version of Lotus 123 that you are using and specify the drive and directory where you want them copied to (such as C:\123R3). If the INSTALL.DDF has been copied to a backup fille (see step 2 above), answer YES to the prompt to confirm overwriting the file.

Now run the Lotus installation utility by typing:

INSTALL[Enter]

Select Change **selected equipment from the list. Note: If you are currently using another driver supplied with a graphics board, it may be necessary to choose First-time installation.**

Select Modify Current DCF, or Choose Another DCF to modify, according to your preference. The following procedure is valid for either selection.

Select Change Video Display. This will present you with a list of all the display types provided with the 1-2-3 distribution, with two additional choices. GD542x 100 Column

Display (800x600 resolution) supports 100x31, 100x42, and 100x75 16 color modes. GD542x 128 Column Display (1024x768 resolution) supports 128x40, 128x54, and 128x96 16 color modes. Select a resolution that best meets your requirements.

After you selection is made, choose the **Save Changes option from the menu. Note that when some high-resolution modes are selected, a message may appear asking for the drive letter of the floppy disk. Before entering the drive letter, insert the disk that is requested in the floppy drive. After inserting the disk, you may enter the drive letter containing that diskette.**

OS/2 2.0

The CIRRUS LOGIC OS2/2.0 16 color driver supports all GD542X chips. The 32-bit 256 color accelerated driver supports the GD5426 and GD5428 only. For other CIRRUS LOGIC GD542X chips such as the GD5424 you may use the 256 color driver that ships with OS/2 2.1 from IBM.

You will need the following programs for Installation.

CLMODE.EXE or Video Adapter Utility program to select monitor type. 256 color accelerated drivers can only be used with the OS/2 2.0 Corrective Service Pack which is an upgrade that can be purchased from IBM.

Installing the 16 color driver:

1. Edit OS/2's CONFIG.SYS FILE WITH THE FOLLOWING SETTINGS.
   search for the LIBPATH statement and add `"C:\OS2\DLL\CLDSP"` to the beginning of the LIBPATH statement.
   For example:

```
LIBPATH=C:\OS2\DLL\CLDSP; .; ........
set video_devices=vio_SVGA
set vio_SVGA=device(bvhvga,bvhsvga)
device=C:\os2\mdos\vsvga.sys
```

and remark (REM) the following statements:

```
REM set video_devices=vio_vga
REM set vio_vga=device(bvhvga)
REM device=C:\os2\mdos\vvga.sys
```

2. Bring up a DOS full screen session, run CLMODE.EXE utility that came in your video adapter Utilities Disk to set monitor type, then insert CIRRUS LOGIC's driver diskette in drive A: or B:, type A:SVGA.EXE `ON[Enter] or B:SVGA.EXE ON[Enter]` to create an SVGADATA.PMI FILE. COPY YOUR SVGADATA.PMI FILE TO YOUR OS/2 SUBDIRECTORY.
3. Shut down the system to boot up from the OS/2 2.0 Installation Diskette, then **ESC out of Diskette One to run** CLI1620.CMD.

Installing the 256 colors accelerated driver:

256 color accelerated drivers can only be used with the OS/2 2.0 Corrective Service Pack which is an upgrade that can be purchased from IBM and the CIRRUS LOGIC GD5426 or GD5428 chips.

1. Edit OS/2's CONFIG.SYSfile with the following setting

For example:

```
set video_devices=vio_SVGA
set vio_SVGA=device(bvhvga,bvhsvga)
device=C:\os2\mdos\vsvga.sys
```

and remark (REM) the following statements:

```
REM set video_devices=vio_vga
REM set vio_vga=device(bvhvga)
REM device=C:\os2\mdos\vvga.sys
```

2. Bring up a DOS full screen session, run the CLMODE.EXE utility that came in your video adapter Utilities Disk to set monitor type, then insert CIRRUS LOGIC's driver diskette in drive A: or B:, type `A:SVGA.EXE ON[Enter]` or `B:SVGA.EXE ON[Enter]` to create an SVGADATA.PMI FILE. COPY YOUR SVGADATA.PMI FILE TO YOUR OS/2 SUBDIRECTORY.
3. Shut down the system to boot up from the OS/2 2.0 Installation Diskette, then **ESC** out of Diskette One to run CLI25620.CMD

Note:

When running Win-OS2 in Full Screen, Open Settings for **Win-OS2 Full Screen and go to Session. Under DOS Settings go to Video_Switch_Notification and switch the default setting from OFF to ON. This setting must be changed so that when running Full Screen Win-OS2 the Virtual Device Driver (VSVGA.SYS) functions properly when switching between OS/2 Presentation Manager and Windows Program Manager.**

OS/2 2.1

The CIRRUS LOGIC OS/2 2.1 256 color accelerated driver supports CIRRUS LOGIC's GD54XX chips. For other CIRRUS LOGIC GD54XX chips such as the GD5428 you may use the 256 color driver that ships with OS/2 2.1 from IBM.

You will need the following programs for installation: CLMODE.EXE or Video Adapter Utility program to select monitor type.

IMPORTANT NOTE:

IBM's DISPINST.EXE calls SVGA.EXE to identify the SVGA chipset before proceeding with the installation of a display driver. The IBM SVGA.EXE shipped with OS/2 2.1 does not correctly ID the CIRRUS LOGIC Chipset. Running CLINST21.CMD will update SVGA.EXE with the new CIRRUS SVGA.EXE BEFORE CALLING DSPINSTL.EXE. THIS WILL HELP OS/2 IDENTIFY THE CIRRUS LOGIC CHIPSET CORRECTLY. IF YOU ARE HAVING TROUBLE INSTALLING THE CIRRUS LOGIC DRIVERS, MANUALLY RENAME THE IBM SVGA.EXE TO SVGA.IBM AND COPY THE NEW SVGA.EXE FILE TO YOUR OS/2 SUBDIRECTORY. DURING INSTALLATION, THE TARGET FILE MAY HAVE A NEWER DATE THAN THE SOURCE FILE, SELECT THE **Yes button when the installation program displays a dialog box to notify the user of this situation. Information about SVGA.EXE can be found in the OS/2 User Manual on Page 339.**

The accelerated drivers for OS/2 2.1 require 1MB of memory on the driver card. If you have a card with 512K of memory, use the standard drivers that shipped with your copy of OS/2.

Install from floppy diskette:

1. Insert OS/2 display driver disk (must have volume labeled "DISP 1") into a floppy drive.
2. Invoke an OS/2 window session or an OS/2 full screen session.
3. Change to the floppy drive with the display driver disk, e.g. `a: [Enter]`.
4. Run clinst21.cmd from the floppy drive, e.g. `clinst21 c[Enter]`.
5. Check the **Primary Display check box from the DISPLAY DRIVER INSTALL dialog box.**
6. Select **CIRRUS LOGIC Blitter Driver from the PRIMARY DISPLAY ADAPTER TYPE dialog box.**
7. The **MONITOR CONFIGURATION/SELECTION UTILITY dialog box will appear. Click OK for default monitor settings (which is monitor type 3) or select Display Adapter Utility Program and run your display adapter utility program to set your monitor type.**

For example:

```
c:\utils\clmode.exe m5
```

CLMODE.EXE comes in your CIRRUS LOGIC Utilities Disk.

8. Select the display resolution of choice from the **SELECT DISPLAY RESOLUTION list box.**
9. Click the **Install button in the SOURCE DIRECTORY dialog box and follow prompts.**

Install from the hard drive:

1. Xcopy display driver disk one to the hard drive, target directory must be named DISP_1, e.g. `xcopy a: c:\disp_1.`
2. Invoke an OS/2 window session or an OS/2 full screen session.
3. Change to \disp_1 directory, run CLINST21.CMD, E.G. `clinst21 c[Enter].`
4. Check the **Primary Display check box from the DISPLAY DRIVER INSTALL dialog box.**
5. Select **CIRRUS LOGIC Blitter Driver from PRIMARY DISPLAY ADAPTER TYPE dialog box.**
6. The **MONITOR CONFIGURATION/SELECTION UTILITY dialog box will appear. Click OK for default monitor settings (which is monitor type 3) or select Display Adapter Utility Program and run your display adapter utility program to set your monitor type.**

For example:

```
c:\utils\clmode.exe m5
```

CLMODE.EXE comes in your CIRRUS LOGIC Utilities Disk.

7. Select the display resolution of choice from the **SELECT DISPLAY RESOLUTION list box.**
8. Click the **Change button in the SOURCE DIRECTORY dialog box, type**

```
c:\disp_1
```

in edit box and follow prompts.

To install Windows 3.0 drivers for OS/2 2.0:

Instruction for installation 256 Color Drivers for Windows 3.0 Drivers for CIRRUS LOGIC Chipsets GD542x. Note that you should not use the 65,536 or 16 million color Windows 3.1 drivers with OS/2.

1. Run Full Screen Win-OS/2.
2. Select **File from drop-down menu.**
3. Select **Run, and then Browse A: or B: drive, wherever your Windows/OS/2 Driver Disk resides.**
4. For OS/2 2.0 go to Win30 subdirectory and run install.exe.
5. Use Setres Utility to change resolution.

Note: It is recommended that the resolution you choose corresponds with the resolution you are running in OS/2.

Ventura Publisher

Installing Ventura Publisher display drivers.

To install the Ventura Publisher driver, proceed as follows:

Install Ventura Publisher V2.0 as instructed in the product's manual, specifying the Hercules driver.

Insert the CIRRUS LOGIC drivers diskette into Drive B:. Run the CIRRUS LOGIC installation program (INSTALL.EXE), and choose the option for the Ventura Publisher drivers and specify the drive and directory where you want them copied to (such as A:\). Ventura Publisher requires that the drivers be installed from the root directory of a floppy disk in drive

A:. Be sure to install the drivers to the root of drive A: or drive B: and then place the diskette in drive A: before proceeding.

Change to drive A: by typing `A: [Enter]`.

After the A: prompt appears, run the VPDRV2_0.EXE program by typing VPDRV2_0[Enter]. Note that VPDRV2_0.EXE can only be executed from the A: drive.

Follow the step-by-step installation procedure as it appears on the screen and select one of the following drivers when prompted:

CIRRUS LOGIC VGA 800x600 16 of 256K colors or grays.

CIRRUS LOGIC VGA 1024x768 16 of 256K colors or grays.

Ventura Publisher V2.0 is now configured for the selected screen resolution and 16 color graphics.

Microsoft Word

The high resolution Microsoft Word 5.0 display driver supplied with your CIRRUS LOGIC VGA supports both high resolution text and graphics. When using a Microsoft Mouse with the driver, please ensure that your mouse driver version level is 7.0 or above.

Installing Word display drivers

To install the Word high resolution text driver supplied with your CIRRUS LOGIC VGA, follow these instructions:

(VGA).

Run the CIRRUS LOGIC installation program (INSTALL.EXE), and choose the option for the Microsoft Word drivers and specify the drive and directory where you want them copied to (such as C:\WORD5).

To use the new drivers they must be installed in the same directory as Word. Otherwise, they must be copied to the Word directory before they can be used.

INSTALL.EXE will copy two screen drivers:

SCREEN8 VID - for 800x600 graphics resolution

SCREEN.VID - for 1024 x768 graphics resolution

The driver to be used must be named SCREEN.VID. Whan a file is renamed this, it will overwrite the existing display driver. If you wish to preserve the original, it should be renamed or copied prior to installation of the new drivers.

The new driver is now installed, and to use it, run Word as you normally would. To view and change the screen resolutions, select **Options, move the cursor to display mode, and press** `[F1]`.

Choose the desired screen resolution from the list presented.

A sub-menu will appear, listing all the choices of resolutions supported by the CIRRUS LOGIC text driver. Select the desired resolution.

WordPerfect 5.1, 6.0

WordPerfect 6.0

To use high resolution modes with WordPerfect 6.0, install the VESA driver that comes with WordPerfect and configure the program to use one of the VESA high resolution graphics modes.

Wordperfect 5.1

The high resolution WordPerfect version 5.1 driver supplied with your CIRRUS LOGIC VGA supports both high resolution text and graphics. WordPerfect allows graphics and text drivers to be set up separately, so be sure to install both of these drivers.

Installing WordPerfect 5.1 display drivers

To install the WordPerfect high resolution text driver supplied with your CIRRUS LOGIC VGA, follow these instructions:

If you have not already done so, install WordPerfect onto your computer system. Follow the instructions supplied with WordPerfect.

Run the CIRRUS LOGIC installation program (INSTALL.EXE), and choose the option for the WordPerfect drivers and specify the drive and directory where you want them copied to (such as C:\WP51).

Start WordPerfect, and go into **SETUP** by typing `[Shift-F1]`.

Choose Display `[2], then text screen type by pressing [3].`

Move the cursor to where GD542X appears on the list, and choose **SELECT**.

A sub-menu will appear, listing all the choices of resolutions supported by the CIRRUS LOGIC text driver. Select the desired resolution.

To install the WordPerfect high resolution graphics driver supplied with your CIRRUS LOGIC VGA, follow these instructions:

If you have not already done so, install WordPerfect onto your computer system. Follow the instructions supplied with WordPerfect.

Run the CIRRUS LOGIC installation program (INSTALL.EXE), and choose the option for the WordPerfect drivers and specify the drive and directory where you want them copied to (such as C:\WP51).

Start WordPerfect, and go into **SETUP** by typing `[Shift-F1]`.

Choose Display `[2], then graphics screen type by pressing [2].`

Move the cursor to where CIRRUS LOGIC VGA appears on the list, and choose **SELECT**.

A sub-menu will appear, listing all the choices of resolutions supported by the CIRRUS LOGIC graphics driver. Select the desired resolution.

WordStar

The WordStar display drivers support both WordStar version 5.5 and 6.0 and above and WordStar 2000 version 3.5.

Installing WordStar drivers

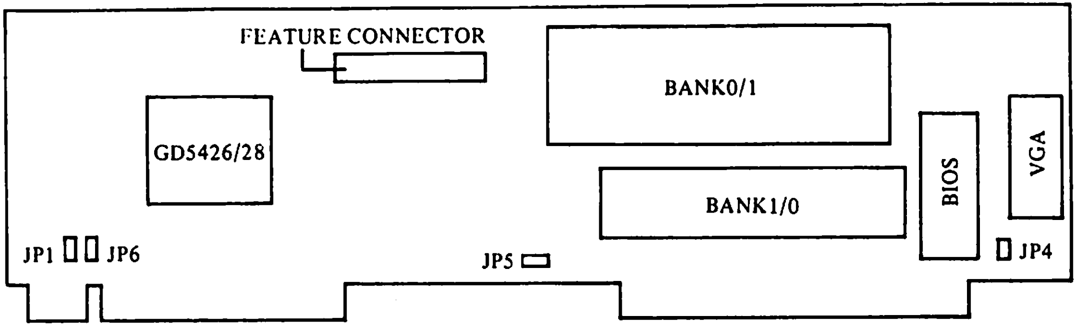
To install the WordStar high resolution text driver supplied with your CIRRUS LOGIC VGA, follow these instructions:

If you have not already done so, install WordStar onto your computer system. Follow the instructions supplied with WordStar.

Run the CIRRUS LOGIC installation program (INSTALL.EXE), and choose the option for the WordStar drivers and specify the drive and directory where you want them copied to (such as C:\WS).

Using a text editor enter the file FONTID.CTL in the WordStar directory and change the CRT_TYPE line to read.

SECTION 2: Board Layout



JUMPER SETTING:

JP1: GREEN PC CONNECTOR
JP4 ON : IRQ9 ENABLE
OFF : IRQ9 DISABLE
JP6 ON : GREEN PC ENABLE
OFF : GREEN PC DISABLE
JP5 1-2 : TURBO
2-3 : NORMAL